July 6, 2003

Federal Communications Commission
Washington, D.C.

Subject: Docket 03-104 (Broadband over Power Line/Power Line Carrier)

Dear Commissioners:

I am very concerned that in your haste to implement Broadband over Power Line (BPL) / Power Line Carrier (PLC), you will overlook the significant pitfalls of this technology.

Well-documented studies in Europe and Japan indicate that BPL/PLC causes harmful interference to high frequency communications. Additional investigation within the U.S provides further evidence that the interference caused by this technology is not trivial. It is strong enough to obliterate all but the strongest signals, which would render high frequency communications virtually useless. For your reference, I cite the article 'Physical and Regulatory Constraints for Communication over the Power Supply Grid' by Gebhardt, Weinmann, and Dostert in the May 2003 issue of IEEE Communications Magazine. It documents several key characteristics of the power grid that makes severe compatibility problems with other existing HF services inevitable.

I am an FCC-licensed radio amateur - callsign N0AX. If the studies cited above are accurate, proliferation of this technology would likely drive me and many others in urban and suburban areas off the air.

Radio amateurs are frequently called upon to assist local public safety agencies in dealing with emergency situations. I spend many hours every year supporting Amateur Radio training and preparedness activities at no cost to the taxpayers. At a time when amateurs are being asked to make significant contributions to local emergency preparedness and national homeland security, it is dramatically counter-productive for the Commission to permit implementation of BPL/PLC at the cost of eliminating these valuable emergency communications capabilities.

Beyond the technical issues of whether the technology is feasible or not, the FCC should also consider whether the utilities are prepared to properly manage and maintain this technology. The unpleasant experiences of amateurs with interference caused by the utilities is well documented by the FCC. In fact, FCC enforcement actions regarding utility-caused interference is at an all-time high.

Deployment and maintenance of BPL/PLC will require a significant and open-ended investment in new techniques, instrumentation, procedures, training, and quality control techniques that are entirely foreign to the existing infrastructure of the utilities. The FCC should look past the raw feasibility of the technology to determine whether it can be correctly handled on an ongoing basis by the utilities.

The FCC should proceed extremely cautiously in evaluating the implementation of BPL/PLC. Proponents of this technology should be required to evaluate and test their delivery systems so as to demonstrate that BPL/PLC will not cause harmful interference to other licensed services in the HF spectrum. Extended field studies must be performed to determine both the impact of BPL/PLC on existing spectrum users as well as the effects of normal utility grid operation on the quality of the service and the high degree of line symmetry required for interference suppression. Do not accept controlled demonstrations as

evidence of suitability for deployment. Be sure to include other spectrum users in the studies and include their evaluations and requirements in the assessment.

Protection of spectrum users from harmful interference is at the core of the FCC's mission and I expect it to be vigorously pursued.

Very truly yours,

H. Ward Silver
22916 107th Ave SW
Vashon, WA 98070

Cc: Sen. Patty Murray
Sen. Maria Cantwell
Rep. James McDowell
Rep. Norm Dicks